Can't We Just Live Together? New Evidence on the Effect of Relationship Status on Health

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August, 2009

Although there is mounting evidence that marriage reduces mortality risk; there is less consensus about the effect of marriage on morbidity. Moreover, there is little evidence as to whether marriage and cohabitation have different effects on morbidity. In addition, measures of morbidity vary widely from study to study making comparisons difficult, and the often used categorical measure of self-assessed health raise difficult interpretation (Groot, 2000) and econometric issues. Finally, the extant research in this area relies almost exclusively on fixed-effects models to control for selection into marriage without addressing the strong persistence in health. Yet, because of its reliance on differencing, fixed-effects models that include lagged dependent variables may be inappropriate. First, a fixed-effects specification on a dynamic model changes the research question from the effect of marriage on health to the effect of a change in marriage state on the change in health. Second, if there is little variation in marriage states, the coefficients on marital status will be unidentified. In fact, we observe a change in marital status in just under 10 percent of the person-years in our 17 year panel. Finally, if there is strong persistence in health and/or marriage first differences will be weak instruments for the levels. (See Averett et al. (2008) for a recent application of fixed effects to the relationship between marriage and health and Wilson and Oswald (2005) or Wood et al. (2007) for excellent reviews of this literature).

Our research aims to improve on previous research in this area in several ways. First, we use a multiple correspondence analysis to identify instruments for a continuous health index that reflects the multiple facets of morbidity and alleviates the econometric issues associated with a discrete dependent variable as a measure of health status as well as the concern over what exactly self-health measures. Second, extending Vella and

Verbeek (1999) we control for the selection effect by estimating the individual heterogeneity affecting both selection into marriage and health. Utilizing the methodology in Train (2003) we estimate individual heterogeneity parameters from the random coefficient on lagged health in a mixed logit selection equation and use this as a covariate in the primary health equation. This coefficient reflects both the reverse causality of health into marriage and the unobservable heterogeneity that would otherwise induce selection bias. This improves on fixed-effects as it allows us to come closer to establishing a causal effect of marriage and cohabitation on health. Third, we test for structural breaks associated with age. Finally, we include new covariates for life preferences in the selection equation to identify marital status and we include a variable measuring participation in social organizations in the health equation to further control for individual heterogeneity that may affect both marriage and health.

Our preliminary analysis using a balanced panel of nearly 2,430 individuals over 17 waves of the British Household Panel Survey (nearly 30,000 person years) finds that cohabitation has a greater positive effect on health than marriage after controlling for both selection and health dynamics. We further find a significant structural break around age 40, with the positive effect of cohabitation greater over 40 and insignificant under 40. Divorce is harmful to health under age 40, but not over age 40 while being never married is insignificant under age 40 but harmful to health over age 40. Results from our selection equation suggest that those in higher health are less likely to marry when under age 40, but more likely to marry when over age 40. The structural break in the data around age 40 may indicate why the extant literature has found support for both the marriage market and protection hypotheses.

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